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...es don't have to open ...l envelopes, rules Court

...or

...ON, D.C.—A recent ...e Court decision may ...lities will no longer be ...f consumer group mes... billing envelopes.

...25 decision, the Court ... Pacific Gas & Electric ... to include inserts in its ...ward Utility Rate Nor... JRN), a local consumer

...wis Powell, who deliv... ...gment, said the Californ... Utilities Commission's order to PG&E to include the mailings in its bills was a violation of the utility's First Amendment rights.

Rights burdened

In the majority opinion, Powell wrote that the order "...impermissibly burdens appellant's First Amendment rights because it forces appellant to associate with views of other speakers on the basis of their viewpoints."

Joining Powell in the decision were Justices William Brennan, Sandra Day O'Connor and Chief Justice Warren Burger. Justice Thurgood Marshall concurred in a separate opinion. Justice Harry Blackmun took no part in the case.

In 1980, TURN asked the California PUC to bar PG&E from using its billing envelope space to distribute political editorials. The PUC determined that the "extra space" in the bill was the property of the ratepayer and allowed TURN to use the space four times a year for the next two years.

Arguing that it should not have to mail out opinions it didn't agree with, PG&E appealed the decision to the California Supreme Court. The state court decided not to review the case and it went to the Supreme Court.

PG&E property

The Court said the billing envelopes are the property of PG&E and that the utility should not be forced to spread opinions that it did not agree with.

"Compelled access like that ordered in this case both penalizes the expression of particular points of view and forces speakers to alter their speech to conform with an agenda they do not set," stated the Court.

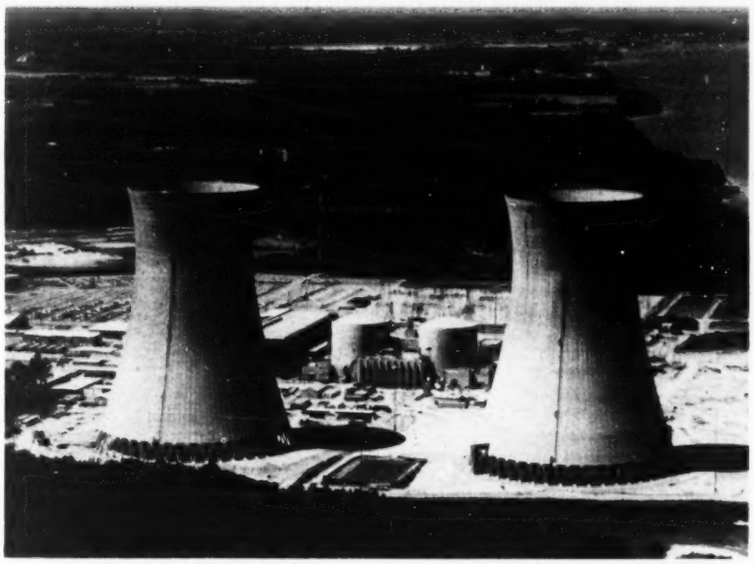
PG&E spokesperson Roberta Bradley said the utility was very pleased. "We felt that the Court was upholding our First Amendment rights," she stated.

TURN Executive Director Sylvia Siegel told *EL&P* that the group "was disappointed that it (the decision) didn't go the other way."

She said TURN has asked the California PUC to issue a legal notice that would allow consumer groups and other organizations to be listed on a brochure that would be included in utility billing envelopes four times a year. Siegel explained that only the group names and addresses would be listed, with a box to be checked so the consumer could receive more information.

Continued on page 12

Electric utilities report on 1985 Story begins on p.15



Nation's 100th reactor licensed

Perry-1, the nation's 100th operable reactor, received a low-power license from the Nuclear Regulatory Commission on March 18. Owned by a consortium of five utilities and operated by Cleveland Electric Illuminating, the 1,205 MW boiling water unit located on the shore of Lake Erie was built by General Electric Company. The first utility-operated nuclear plant was the 60 MW Shippingport reactor activated in Dec. 1957. The U.S.'s 100 nuclear power plants total 86,418 MW of capacity, according to the Atomic Industrial Forum. The group said 28 other nuclear units are still under construction in the U.S.

Electric utility oil usage to increase dramatically by 1994

WASHINGTON, D.C.—Oil use by U.S. electric utilities will likely rise by as much as 2.7 million barrels per day by 1994, according to a new study.

Done for the U.S. Committee for Energy Awareness by Science Concepts, Inc., *A Return to the Age of Oil?* suggests that an increase in electricity demand growth above what is currently forecast will lead to a substantial rise in oil imports.

"If demand for electricity grows faster than current projections," says the report, "U.S. oil imports will need to increase by as much as 3 million barrels per day by 1994."

The study found that the electric utility industry has reduced its oil consumption by an amount equal to one-third of the decline in U.S. oil imports since 1980.

Demand likely to rise

"Future electric demand is increasingly likely to exceed recent projections because of the continuing economic recovery of the nation and its probable acceleration because of the crash in world oil prices," states the report. "At the same time, there is little to suggest that major changes will soon occur in the financial and regulatory systems that have burdened many utilities and led to the current aversion to major new construction."

On April 2, oil prices fell to $9.75 per barrel, their lowest level since 1977.

The report notes that since electric demand tracks economic growth, any increased growth in the economy will result in shortfalls of available and planned non-oil generating capacity.

"There is too little time between now and 1994 to put into place major amounts of new non-oil capacity," warned the study.

Because construction of nuclear and coal-fired plants have diminished the utilization of oil-fired units in the past ten years, the study's authors

Continued on page 14

Reagan endorses acid rain report of special envoys

WASHINGTON, D.C.—President Reagan announced in March that he fully supports the joint report on acid rain issued by the U.S. and Canadian special envoys.

In 1985, the President and Canadian Prime Minister Brian Mulroney commissioned Drew Lewis and William Davis to undertake a comprehensive study of acid rain. The two envoys submitted their report in January (see *EL&P* Feb. p.1).

The report called for the U.S. to initiate a five-year, $5-billion program to commercially demonstrate new clean coal technologies. Lewis had told Reagan in a letter with the report that "there should be no doubt that acidic air emissions are being transported through the atmosphere and over the U.S./Canadian border. That transboundary air pollution is causing serious environmental concern in both countries because of the ecological, economic and cultural value of the resources at risk."

Beneficial process

At a March 19, 1986 meeting in Washington with Prime Minister Mulroney, Reagan said, "Serious scientific and economic problems remain to be solved. But in the spirit of cooperation and goodwill which has come to characterize the way Canadians and Americans approach their common problems, I am confident that we have begun a process which will benefit future generations in both our great countries."

Mulroney said acid rain threatens the environment in both countries. He stated, "I am confident that we can move to early and substantial reductions of damage to our environment."

A White House spokesperson said the Administration will move forward with a program to develop and demonstrate innovative control technologies. The White House noted that $700 million has been earmarked in this year's budget for clean coal research between 1986 and 1991. That money will be used by the Dept. of Energy and EPA for R&D programs already underway.

Also, the spokesperson added that an $800 million joint industry/government program designed to develop and demonstrate new clean coal methods will be implemented.

The $800 million represents $400 million already earmarked by Congress for the government's clean coal program and the 50 percent matching contribution expected from industry sources.

Program funding

Funding for DOE's matching program is being made available this year at a level of $99.4 million. In 1987 and 1988, $149.1 million will be made available.

Although it doesn't have the funds now, the Administration said it will seek to provide the full funding recommended by the envoys sometime in the future. The spokesperson stated that states also will be encouraged

Continued on page 18

News Briefs

JILL BUCHHOLZ, Editorial Assistant

Gibbs & Hill awarded refuse-to-energy facility contract

● Gibbs & Hill, Inc., a subsidiary of Dravo Corp., has been awarded a contract from American REF-FUEL to design and engineer a refuse-to-energy facility in Newark, NJ. Power from the 60 MW plant will be sold to Public Service Electric & Gas Co. According to Dravo, construction is scheduled to begin this year and completion is expected in three years.

Diablo Canyon Unit 2 begins full commercial operation

Unit 2 of Pacific Gas and Electric Co.'s Diablo Canyon Nuclear Power Plant began commercial operation March 13 after a full-power testing program, according to PG&E Executive Vice President George A. Maneatis. Unit 1 started operating last May and, combined with Unit 2, can generate more than 2.2 million kW. The plant is located on the Pacific Ocean, midway between San Francisco and Los Angeles.

Detroit Edison sues PacifiCorp subsidiary

● PacifiCorp has reported that Detroit Edison Co. is suing Decker Coal Co. over treatment of certain taxes in computing the purchase price of the coal. NERCO Inc., a subsidiary of PacifiCorp, has a 50 percent non-operating interest in Decker. The firm said it plans to vigorously defend the lawsuit. Detroit Edison is seeking repayment, with interest, of the amount that it allegedly overpaid since 1975, as well as treble damages and costs of suit. Also sought is revision of the tax-related price adjustment provision of the existing coal purchase contract under which Detroit Edison buys 7.2 million tons of coal annually. The contract runs through 2001.

In This Issue

Editorial 4

Calendar 9

What are utility executives telling shareholders and employees? Selected highlights from the new annual reports of electric utilities across the nation. 15

New French fast reactor goes critical, but draws severe criticisms.G .. 19

Fuel cell R&D moves ahead, with economics of larger units improving.G 24

Full-scale, not partial testing of a service restoration program is the only way to determine if it really will work.T/D 28

New Products 32

Readers' Service 35

New Literature 37

Regulatory Review 39

Personnel 40

Management Methods 42

EL&P readers whose responsibilities include both Generation and Transmission/Distribution receive both technology sections. Other readers receive the technology section that applies to their respective area of responsibility. The Generation edition is indicated by a single dot (•) in the upper right corner of page 1; the T/D edition carries two dots (••). All readers receive EL&P's industry news section.

AEP requests funds for clean-coal demo program

● The American Electric Power System (AEP) has requested $10 million from the state of Ohio toward a $175 million clean-coal demonstration program using the pressurized, fluidized bed combustion process (PFBC). AEP System's management and technology arm, AEP Service Corp., is applying for the state funds on behalf of Ohio Power Co. Ohio Power is the owner of the Tidd Plant, now in mothballs, which is the site of the 70,000 kW demonstration facility. AEP also plans to ask the U.S. Department of Energy for $60 million of the almost $400 million appropriated by Congress to help fund clean-coal technology projects. AEP Service Corp.'s Vice Chairman-Engineering and Construction John E. Dolan said that to keep the PFBC project on schedule, final commitments must be made by October. If the requested funding becomes available from both federal and state governments, construction could begin next year with the plant in operation by 1990, according to AEP.

AWEA says Calif. windpower production tripled in '85

● According to the American Wind Energy Association (AWEA), California windfarms produced 23.8 million kWh of electricity for Southern California Edison Co. and Pacific Gas & Electric Co. in Dec. 1985. That figure brings last year's total windfarm output to 622.0 million kWh, three times more than the 188.1 million kWh produced in 1984, and 13 times more than the 47 million kWh generated in 1983. The cumulative total of power produced by windfarms in 1985, said AWEA, equaled 862.1 million kWh. AWEA Executive Director Tom Gray noted that the 1985 figures "confirm a remarkable record of achievement for an industry which literally did not exist five years ago." According to a General Electric study, there is enough wind energy available in the U.S. to provide more than a trillion kWh annually, about 40% of the nation's current demand.

PSC approves PSI rate increase

● The Indiana Public Service Commission (PSC) has approved a settlement agreement allowing Public Service Indiana (PSI) an 8.2 percent rate increase, or $68.2 million annually, which will remain in effect until Dec.31, 1989. PSI said, however, that it will not seek recovery of its canceled Marble Hill project through rates. According to the company, the PSC order restricts PSI's payment of common dividends for three years and general rate increases for four years. Capital spending will be limited for the next three years to $285.1 million. PSI was authorized by the commission to include in its retail rates a five percent emergency surcharge that was granted in March 1984. Also, the Securities and Exchange Commission approved PSI's plan to report $475 million as an asset. The asset is equal to future tax benefits which, state regulators said, can be realized as a result of the Marble Hill loss. Based on the PSC rate order, Moody's Investors Service confirmed a Ba3 rating on PSI's first mortgage bonds and secured pollution control revenue bonds and a B1 rating on the company's unsecured pollution control revenue bonds. Moody's placed PSI's debt ratings under special review in Nov. 1985.

PG&E files for rate reduction

● According to Pacific Gas & Electric Co. (PG&E) Chairman and Chief Executive Officer Frederick W. Mielke, Jr., the company filed a request in early April for a $662 million electric rate decrease and in March filed for a $256 million decrease in its natural gas rates. Of that amount, $210 million is due to lower costs of natural gas used to generate electricity, $280 million is because of the abundant rain and snow that result in more low-cost hydroelectric power and $150 million is from lower payments to geothermal steam producers and alternative energy producers. An extra $22 million is because of other factors, said PG&E. The company noted that additional rate reductions of up to $340 million are possible, depending on the price of hydro power imported from the Pacific Northwest; on various economic conditions; and, on the chance that hydro conditions will prove better than expected. In March, PG&E notified the California Public Utilities Commission that it is reducing its general rate increase request by $282 million to $690 million. The increase, to take effect January 1987, is likely to be reduced further if favorable economic conditions continue, said Mielke.

NCA study says coal plant emissions declined

● The National Coal Association (NCA) reported in a recent study that sulfur dioxide emissions, per ton of coal consumed at coal-fired power plants, declined by 4.6 percent a year between 1980 and 1984, despite a 100 million ton a year increase in coal use. The NCA added that data from the first 11 months of 1985 indicates that the trend is continuing. NCA Executive Vice President A. Denny Ellerman said of the decline, "Based on our understanding of the factors influencing SO_2 emissions and the latest forecast for coal use between now and 1990, we are confident that the downward trend will continue at least through 1990, the end point in this study."

Clinton nuclear plant fuel loading delayed

● Illinois Power Co. delayed the fuel loading at its Clinton nuclear plant which had been planned for March. The Nuclear Regulatory Commission requires that more testing be done on the plant and Illinois Power management has determined that the completion of testing and preparing the plant for operation is more difficult and requires more time than was scheduled. Illinois Power Chairman and President Wendell J. Kelley said, "...We are going to take all the time necessary to build an absolutely safe plant." Illinois Power Co. said it is in the final process of testing the plant, however the NRC will determine when fuel loading can begin at Clinton.

Stonybrook unit ranked most efficient plant in 1984

WASHINGTON, D.C.—Massachusetts Municipal Wholesale Electric Company's Stonybrook combined cycle plant was the most efficient generating station in the U.S. in 1984, according to a recent report from Utility Data Institute.

The plant had a heat rate of 8838 Btu per kWh. The Tennessee Valley Authority's Bull Run station, which logged 1983's top heat rate, dropped to third place with a heat rate of 8960 Btu per kWh. Georgia Power Company's McDonough coal plant came in second with a 8903 Btu per kWh heat rate.

UDI's report contains top 100 rankings on heat rate, production expense and net output. The top 20 plants, ranked by heat rate and production expense, are shown in the tables.

Top nine are coal-fired

Nine of the top 10 most efficient plants are coal-fired. Canal Electric Company's Canal plant had the lowest heat rate among oil-fired plants (9394 Btu per kWh). Houston Lighting & Power Company's Bayou plant had the lowest heat rate (9870 Btu per kWh) for gas-fired plants.

UDI's data base of 641 plants represents about 95 percent of the total electricity generated by steam-electric plants in the nation in 1984. The plants represent a total capacity of 492 GW. Data used in the report was compiled from FERC Form 1s, EIA Form 412s and REA Form 12Ds.

Of the 100 most efficient plants, UDI noted that 84 were coal-fired, 8 oil-fired, 5 gas-fired and 3 combined cycle plants. No nuclear plants were included because of the variability among utilities in reporting fuel consumption and heat content of nuclear fuel.

As they did in the previous two reports, West Texas Utilities Company and Gulf States Utilities Company were at the top of the production expenses rankings.

West Texas garners top spot

West Texas Utilities took over the number one ranking in 1984 from Gulf States, whose Sabine station lost its top ranking from 1983. One change from 1983's report is the loss of nuclear units from the top 20. UDI's report shows that 13 nuclear units were in the top 20 in 1983, while only 8 made it in 1984.

Of the top 100 stations that produced the least expensive power, UDI reported that 68 were coal-fired, 27 were nuclear and 5 were gas-fired. No oil-fired plants made the list.

Of the 641 total plants, the 51 nuclear plants had the lowest average production expense at $18.17 per MWhr. Next came the 378 coal plants at $22.32 per MWhr, the 149 gas-fired units at $42.98 per MWhr, and the 55 oil-fired units at $55.30 per MWhr. The eight units using "other" fuels cost an average of $4.76 per MWhr.

The nuclear units came in with the lowest average fuel expense at $7.18 per MWhr, while the oil-fired stations had the highest at $49.84 per MWhr.

Average production expenses

UDI said average production expenses for the entire group were $25.87 per net MWhr and average fuel expenses were $20.64 per net MWhr.

The institute also published a comparison of 1983 and 1984 expenses for a selected group of large steam electric plants.

According to the report, the total cost of operating and maintaining the 641 plants in 1984 totalled approximately $51.7 billion. About $41.2 billion of that was attributable to fuel purchases, said UDI.

Third report added

Institute President Liz Hannon said a third report was added this year that covers unit-specific O&M costs for 146 units where data were unavailable to UDI.

All three reports are available from UDI for $300. For more information, call the group at (202) 466-3660.

UDI is a private not-for-profit services company. The firm is responsible for managing and updating the Edison Electric Institute's Power Statistics Data Base, and works for EPRI and other utility groups.

TOP 20 U.S. STEAM ELECTRIC PLANTS IN 1984 RANKED BY BTU PER KILOWATT HOUR

No.	Plant or unit	Heat rate (Btu/kWhr)	Operator	Primary fuel type	1984 Installed capacity	1984 Net generation (MWhrs)
1	Stonybrook	8838	Mass. Muni. Whsl. Elec. Co.	CCYC	389	855,640
2	McDonough	8903	Georgia Power Co.	Coal	598	3,620,982
3	Bull Run	8960	Tennessee Valley Auth.	Coal	950	5,094,416
4	Marshall (NC)	9078	Duke Power Co.	Coal	1,998	9,932,330
5	Belews Creek	9135	Duke Power Co.	Coal	2,160	10,580,004
6	JH Campbell	9260	Consumers Power Co.	Coal	1,420	8,339,091
7	Mountaineer	9317	Appalachian Power Co.	Coal	1,300	7,683,946
8	Crystal River 4&5	9327	Florida Power Corp.	Coal	1,479	5,229,355
9	Gallatin	9360	Tennessee Valley Auth.	Coal	1,255	6,839,033
10	Bay Shore	9376	Toledo Edison Co.	Coal	639	3,551,159
11	Canal	9394	Canal Electric Co.	Oil	1,072	6,210,223
12	Genoa 3	9445	Dairyland Power Coop.	Coal	346	1,922,826
13	Amos	9452	Appalachian Power Co.	Coal	2,933	14,759,193
14	Morgantown	9456	Potomac Electric Power Co.	Coal	1,252	6,775,713
15	McMeekin	9464	South Carolina Elec. & Gas.	Coal	294	1,768,534
16	John Sevier	9480	Tennessee Valley Auth.	Coal	800	5,000,285
17	Milliken	9482	New York State Elec. & Gas	Coal	322	2,210,013
18	Clinch River	9499	Appalachian Power Co.	Coal	713	3,872,062
19	New Haven Harbor	9506	United Illuminating Co.	Oil	465	2,663,536
20	New Boston	9522	Boston Edison Co.	Oil	718	3,512,880

Source: 1984 Production Costs, Operating Steam Electric Plants, March 1986.

TOP 20 U.S. STEAM ELECTRIC PLANTS IN 1984 RANKED BY AVERAGE EXPENSES (INCLUDING FUEL) PER NET MEGAWATT HOUR

No.	Plant or unit	Average expenses/ net MWhr	Operator	Primary fuel type	1984 Installed capacity	1984 Net generation (MWhrs)
1	Rio Pecos	4.01	West Texas Utilities Co.	Gas	142	1,078,636
2	Sabine	5.08	Gulf States Utilities Co.	Gas	2,051	11,417,511
3	Neches	6.46	Gulf States Utilities Co.	Gas	341	1,317,226
4	Prairie Island	9.94	Northern States Power Co.	UR	1,186	8,065,345
5	Colstrip	10.11	Montana Power Co.	Coal	1,495	6,952,232
6	Zion	10.33	Commonwealth Edison Co.	UR	2,196	11,688,167
7	Hayden	10.36	Colorado-Ute Elec. Assn.	Coal	465	2,786,691
8	Big Brown	10.84	Texas Utilities Elec. Co.	Coal	1,187	7,540,702
9	St. Lucie	10.93	Florida Power & Light Co.	UR	1,700	9,621,496
10	Big Cajun One	11.11	Cajun Electric Power Coop.	Gas	230	273,778
11	Oconee	11.28	Duke Power Co.	UR	2,667	18,818,954
12	Calvert Cliffs	11.60	Baltimore Gas & Elec. Co.	UR	1,828	11,651,194
13	Laramie River	11.66	Basin Electric Power Coop.	Coal	1,710	8,193,689
14	McGuire	12.28	Duke Power Co.	UR	2,440	12,976,800
15	Turkey Point 3&4	12.41	Florida Power & Light Co.	UR	1,520	7,864,658
16	MR Young	12.64	Minnkota Power Coop.	Coal	673	3,514,002
17	Four Corners	12.72	Arizona Public Service Co.	Coal	2,271	13,789,489
18	Monticello (TX)	12.88	Texas Utilities Elec. Co.	Coal	1,980	12,608,286
19	North Anna	12.89	Virginia Elec. & Power Co.	UR	1,959	8,501,984
20	JE Corette	12.95	Montana Power Co.	Coal	172	574,436

Source: 1984 Production Costs, Operating Steam Electric Plants, March 1986.

France's Superphenix breeder is on-line; controversy brews

SPECIAL TO EL&P
Jacques Neher, Correspondent

PARIS—France has flicked the switch on the world's first commercial-sized fast breeder reactor, but it's already shaping up as something of a white elephant.

Christened Superphenix at powering up ceremonies in Creys-Malville in southeastern France in January, the 1200-MW reactor appears likely to breed plenty of controversy in the next few years as the French government confronts the question of whether to continue the program.

Ultra-expensive technology

The primary problem is money. Built at a cost of about $3.4-billion, Superphenix's capital investment was 2.5-times higher per kW than that required for conventional nuclear power plants. What's more, production costs per kWh at Superphenix are twice that of conventional nuclear plants.

Electricite de France, the national utility that ordered the facility, acknowledges the cost problems but is asking for time in which to learn how to make the razzle-dazzle technology commercially feasible.

Paradoxically, one way to lower costs, claims EdF, would be to build more breeder reactors. "If we [build] the breeder reactor in a series of five to ten units, the cost of a kWh produced would drop to only 1.5-times more than conventional nuclear power," said EdF spokesman Claude Gaborau.

Decision expected in 1987

The government is expected to decide next year whether to make additional investments toward commercializing breeder technology. But industry observers here are not optimistic.

"It's a bit of a luxury," said a Paris-based energy consultant who asked not to be identified. "Even considering how chauvinistic the French are," he added, "there are limits. I don't think we can afford it."

But Gilbert Darmon, secretary-general of Framatome, parent of the company that built Superphenix, said it's necessary to take the longer view.

Insurance for 21st century

"The breeder reactor, he said, "is insurance for the 21st century in the case that uranium becomes too costly or unavailable...It's a guarantee of our independence. Considering that, the cost is inconsequential; insurance is [only] expensive until the accident."

Current benefits

Superphenix already may be paying off in another way, even while it burns money. "It gives France's nuclear program an image of being technically competent," said Darmon. In doing so, he added, it could help Framatome in its efforts to sell its technology to other countries.

"The world is certainly more attentive to us now," he said.

B&W receives Alabama Power contracts

NEW ORLEANS, LA—Babcock & Wilcox, an operating unit of McDermott International, Inc., has received two contracts from Alabama Power Co.

One, a $5 million contract, is for three pulverizers, replacing three existing pulverizers at the company's Green County Steam Plant. B&W is also modifying the boiler burners to enhance fuel conservation, while providing burner piping duct work.

The other is a $2 million contract to replace and upgrade the secondary superheater and reheat superheater of an existing 250-MW radiant boiler, to be installed at Alabama Power's Gaston Steam Plant.